UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NORTH DAKOTA SOUTH EAST DIVISION

Ernie Brookins,

Civil No. 3: |9-Cy-29

Plaintiff,

v.

Complaint in Civil Action
and
JURY DEMAND

Defendant.

Plaintiff Ernie Brookins for his Complaint against Defendant Caterpillar Inc., hereby states and alleges as follows:

JURISDICTION

- 1. Plaintiff Ernie Brookins is a resident of Cass County, North Dakota.
- 2. Defendant Caterpillar Inc. is a business incorporated in the State of Delaware, with its principal office at 100 Northeast Adams, Peoria, IL 61630. Defendant Caterpillar Inc., hereinafter referred to as "Caterpillar" sells its products in the state of North Dakota through its dealers/distributors. Caterpillar Inc. can be served with process through its registered agent CT Corporation Systems at 314 East Thayer Ave., Bismarck, North Dakota 58501-4018.
- 3. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. § 1331, as the Plaintiff raises claims for patent infringement against the Defendant under 35 U.S.C. § 271.

FACTS

- 4. Plaintiff Ernie Brookins is the inventor and owner of United States Patent #7,824,290. A patent application #11/830,067 for such was filed on July 30, 2007, and on November 2, 2010, United States Patent No. 7,824,290 (hereinafter described as the '290 patent) was duly and legally issued for a "Rotational Power Distribution and Control System". A true and correct copy of the '290 patent is attached hereto as Plaintiff's Exhibit 1 and incorporated herein.
- 5. Plaintiff Brookins is the owner of the '290 patent with the exclusive right to enforce the patent against infringers, including his right to prosecute this action.
- 6. Plaintiff Brookins, as inventor, holds power of attorney pro se over the '290 patent at the USPTO.
- 7. Brookins' wife, Gail Brookins (hereinafter known as "Gail"), has been involved in the creation of the patented design, and has also worked closely with patent attorneys on the drafting of various provisional and patent applications, including that for the '290 patent.
- 8. Gail Brookins worked closely with the patent attorney during the prosecution of the '290 patent application; and was able to provide a great amount of help to the attorney due to her understanding of mechanics and hydraulics, as well as of the patenting process.
- 9. In 2012, Caterpillar introduced its new XE Model loader into the marketplace. True and correct copies of pages from the Caterpillar website are attached hereto as Exhibit 2 and incorporated herein.
- 10. On March 5, 2013, a patent application was filed with the U.S. Patent Office, listing Mr. Russell Ross Henderson, Jr., Havana, Illinois as one of the inventors, and Caterpillar Inc., Peoria, Illinois as Assignee. On Dec. 30, 2014, patent #8,920,276 (hereinafter described as the '276 patent) titled "Controller for varying gear ratios in transmission system" was issued from that

application. It is a patent for controlling the gear ratio of a transmission at a variable speed; a CVT. A true and correct copy of the issued '276 patent is attached herein as Exhibit 3 and incorporated herein.

- 11. As part of the application for the '276 patent, Defendant Caterpillar provided to the Patent Office an "Information Disclosure Statement". That statement contained a list of patents referenced by Caterpillar in reference to their application. Included in that list is reference to the '290 patent of Plaintiff Brookins. A true and correct copy of the Henderson/Caterpillar "Information Disclosure Statement" is attached hereto as Exhibit 4 and incorporated herein.
- 12. The U.S. Patent Office Manual of Patent Examining Procedure (MPEP) section 802 "Basis for Restriction Practice in Statute and Rules" contains the requirements for 35 U.S.C. 121 "Divisional applications" (pre-AIA as to the '290 patent) as well as the Code of Federal Regulations 37 C.F.R. 1.142 "Requirement for restriction". A true and correct copy of MPEP 802 is attached hereto as Exhibit 5 and incorporated herein.
- 13. During prosecution of the application that resulted in the issuance of the '290 patent to Brookins, the patent examiner required an election/restriction per 35 U.S. Code § 121. The examiner's descriptions of the three species he gave Plaintiff to choose from were very specific. They included:

Figures 1-3 which show a fluid valve controlled resistance brake for a planetary gearing. (i.e. used by itself as a clutch)

Figures 4A, 4B, 6 and 10 which show a hydromechanical CVT with a planetary gearing. (i.e. used together with a planetary as a CVT) and

Figure 5 which shows a hydrostatic pump/motor acting as either a brake or a drive source for a planetary gearing. (i.e. used by itself as a clutch or a drive source)

14. The examiner also included in that notice, that Brookins was "... to elect a

single disclosed species for prosecution on the merits **to which the claims shall be restricted**.." (emphasis added). A true and correct copy of the examiner's 12-1-09 office action is attached hereto as Exhibit 6 and incorporated herein. Id. page 2

- 15. Brookins chose species 1, figures 1-3, the "clutch"; and the examiner continued researching only the "clutch" species, and not the "CVT" or "drive source" species.
- 16. With the restriction choice, Brookins withdrew 30 claims relating to the CVT or drive source, keeping only those related to the clutch. With the ultimate allowance of the patent application, Brookins cancelled those claims, keeping only the ones examined by the examiner, which were only to the clutch.
- 17. In the office action dated 06-11-10, the examiner on page 1 shows claims 15-40 as "withdrawn from consideration". Page 2 contains statements by the examiner demonstrating his understanding of the species. He states, "... Species 1 is not used to power a drive wheel or start a vehicle. The pump of Species 1 is used solely for the purpose of retarding the rotation of a planetary gear element. This is not the case with the pump and motor of the other Species." Thus, the examiner's explanation that the species chosen by Brookins was not to be used in a vehicle, while the withdrawn and cancelled species of a CVT was used to drive a wheel in a vehicle. That same office action contained on page 4, show his claim rejections based on the Britt patent which contained a pump connected to a planetary. A true and correct copy of the 6-11-10 office action is attached hereto as Exhibit 7 and incorporated herein.
- 18. Once Brookins removed the "planetary" from Claim 1 to resolve the Britt issue, the examiner issued his notice of allowance. While a listing of the claims dated 3-26-10 lists the claims related to the CVT species as "withdrawn", a listing of claims dated 9-8-10 clearly shows those same claims as "cancelled". True and correct copies of the 3-26-10 and 9-8-10 listing of

claims are attached hereto as Exhibit 8 and 9 and incorporated herein.

- 19. The '290 patent was issued on November 2, 2010, with only the claims related to the species 1 hydraulic clutch; not any of the claims related to the CVT.
- 20. On June 26, 2013, Brookins sued MAC, Inc. in Federal Court in Fargo, ND for patent infringement of his '290 patent. (case 3:13-cv-45)
- 21. In that case, MAC insisted that the '290 patent required a planetary gear set, which they did not use.
- 22. A Markman claim construction hearing was held on July 2, 2014. Following the hearing, in his decision, filed 8-14-14, Judge Ralph R. Erickson concluded that the '290 patent had a gear set, but that it did not have to be a planetary. The decision on the Markman hearing, issued on 8-14-14, was in Brookins' favor. In that decision, Judge Erickson used the definition of "coupled" out of the '290 patent specification, stating, "The specification does not limit the term gear set, because there was not a 'clear intention' to do so. The definition of the term "coupled" shows that the '290 Patent may be used with gear sets that are not planetary or differential, because it gives two examples of connections that do not use a planetary or differential gear set: "a gear rigidly affixed to a rotating shaft so the two components rotate in unison" and "a gear train where the ratio of rotation of any particular gear to rotation of any other gear in the train is fixed." "The specification therefore contemplates that the '290 Patent could use gear sets that are not planetary or differential, such as a shaft "coupled" through a generic gear set or gear train." A true and correct copy of the Markman hearing decision is attached hereto as Exhibit 10 and incorporated herein.
 - 23. Less than two months later, on October 8, 2014, the case was settled.
- 24. It should be noted that, though the definition of the term "coupled" in the '290 patent gave a third definition that included a planetary, that species was eliminated from the '290 patent by

the restriction during prosecution.

- 25. Brookins sued Caterpillar for patent infringement of his '290 patent on August 9, 2016 (case 3:16-cv-291). Caterpillar, like MAC, made the argument that the '290 patent required a planetary.
- 26. Caterpillar filed an IPR Petition with the PTAB of the U. S. Patent Office, and six days before the Markman hearing was scheduled to begin, a stay was put in place on the federal case.
- 27. The Caterpillar IPR Petition, filed with the Patent Office as well as in this federal court in support of the stay, contained the false information that the '290 Patent was for a Continuously Variable Transmission (a CVT); thus, Caterpillar committed fraud on the Federal Court system.
- 28. The Patent Board held an oral hearing on June 5, 2018 in the U.S. Patent Office in Alexandria, VA. During that oral hearing, Brookins made clear to Caterpillar and to the Patent Board, that he had filed for and was issued a separate patent for a continuously variable transmission (a CVT), the "Retrofit Kit for an Allison Transmission" (#8,298,107).
- 29. On June 18, 2018, Brookins filed suit in Federal Court in Fargo, ND against Caterpillar claiming Abuse of Process, etc. (case 3:18-cv-129). That case involves Caterpillar's use of false information in the filing of the IPR as well as providing that same false information to this Federal Court in order to get a stay in the '290 patent infringement case.
- 30. On September 11, 2018 the Patent Board made their decision on the IPR, ruling the '290 patent "unenforceable", or invalid as a CVT.
- 31. On October 2, 2018, Brookins dismissed the '290 patent infringement case as to the CVT species.

- 32. On October 9, 2018, as part of his Response to Caterpillar's Motion to Dismiss in the Abuse of Process suit, page 13, Brookins again notified Caterpillar of their infringement on his #8,298,107 "Retrofit Kit for an Allison Transmission" patent.
- 33. On January 3, 2019, during an oral hearing on the Motion to Dismiss, as page 11 of his power point statement, Brookins again informed Caterpillar of their infringement of the '107 patent.
- 34. After waiting over 6 months for Caterpillar to respond to the infringement allegations, Brookins filed suit against Caterpillar for infringement of his '107 patent on January 18, 2019.
- 35. Since the PTAB ruled the '290 Patent "unenforceable" due to prior art of a CVT, it is Brookins' contention that the '290 Patent remains valid and enforceable as to a hydraulic clutch; and therefore is filing this patent infringement lawsuit against Caterpillar per the '290 hydraulic clutch Patent.
- 36. Based upon information and belief, Defendant Caterpillar has manufactured "continuously variable transmission" systems utilizing the intellectual property and design underlying Plaintiff Brookins' "Rotational Power Distribution and Control System" ('290) patent for selling into the marketplace and has sold products (specifically their XE Model loaders) containing continuously variable transmissions in interstate commerce. Those products including the continuously variable transmission are prominently advertised and displayed on their website. The Caterpillar webpages claim many benefits of the continuously variable transmission, including a significant fuel savings. See Exhibit 2.
- 37. The photos and description of the Caterpillar continuously variable transmission clearly show their infringement of Plaintiff Brookins' '290 patent.

- 38. Claim 1 of the '290 patent claims a gear set (including three rotational interfaces), a hydrostatic pump with a cylinder block coupled to one of the three rotational interfaces, a hydraulic fluid circuit, and a valve to control/restrict flow in the circuit.
- 39. The product/products being produced/sold by Defendant Caterpillar also includes a gear set comprised of three rotational interfaces, a hydrostatic pump with a cylinder block coupled to one of the three rotational interfaces, a hydraulic fluid circuit, and a valve to control/restrict flow.
- 40. These elements are clearly shown and described in Defendant Caterpillar's information on its website. A video titled "Cat Medium Wheel Loader XE Advanced Powertrain" can be found on You Tube (first published in 2012). It is also available on the Caterpillar website. A true and correct copy of a screen shot from the video of the Caterpillar "continuously variable transmission" is attached hereto as Exhibit 11 and incorporated herein.
- 41. Caterpillar has been aware of the '290 patent since March 5, 2013, when they filed application for their own '276 patent, referencing Brookins '290 patent.

COUNT ONE – PATENT INFRINGEMENT

- 42. Plaintiff incorporates paragraphs 1-39 herein.
- 43. Defendant Caterpillar has infringed and is still infringing upon the '290 Rotational Distribution hydraulic clutch patent and claims thereof by making, selling, and using continuously variable transmission systems including a fluid controlled resistance brake/hydraulic clutch in their construction equipment including their XE model loaders that embody the '290 patented invention; and Defendant Caterpillar will continue to do so unless enjoined by this Court.
- 44. Plaintiff has complied with the statutory requirement of placing notice of the Letters Patent for the Rotational patent on any and all transmission systems they manufacture

utilizing the patented intellectual property including the '290 patent.

- 45. Though Plaintiff has previously sued Defendant Caterpillar for infringement of both the '290 and the '107 patents, the Defendant continues to make, sell, and use continuously variable transmission systems embodying the Rotational '290 patent.
- 46. Plaintiff Ernie Brookins, as the inventor and owner of the Rotational '290 patent has suffered damages as a direct and proximate result of the patent infringement by Defendant Caterpillar.
 - 47. Claim 1 of the '290 patent reads:
 - "1. A rotational power distribution and control system comprising:
 - (a) A gear set wherein said gear set comprises:
 - (1) A first rotational interface;
 - (2) A second rotational interface; and
 - (3) A third rotational interface;
 - (b) A hydrostatic pump coupled to a selected rotational interface in the form of one of said first rotational interface, said second rotational interface and said third rotational interface; a cylinder block of said hydrostatic pump being coupled to one of said gear set;
 - (c) A hydraulic fluid circuit wherein said hydraulic fluid circuit is interconnected to a first port on said hydrostatic pump, wherein said hydraulic fluid circuit is interconnected to a second port on said hydrostatic pump; and
 - (d) A valve to selectively control flow through said first port on said hydrostatic pump."
- 48. The Caterpillar continuously variable transmission, including a fluid controlled resistance brake/hydraulic clutch, contains each and every one of the components of claim 1 of the '290 patent. A comparison can be made of the '290 patent to the Caterpillar continuously variable transmission with hydraulic clutch as portrayed in their video by examining the screen shot Exhibit 11.
- 49. The '290 claim 1 "gear set" is obvious and present in the screen shot of Exhibit11. In the Caterpillar continuously variable transmission including a fluid controlled resistance

brake/hydraulic clutch, there is at least one, and in fact there are numerous "gear sets", including planetary gear sets, spur gear sets, as well as rotational interface gear sets, as can be seen in the screen shot.

- 50. The '290 claim 1 "hydrostatic pump" is obvious and present in Exhibit 11, which in fact is specifically labeled by Caterpillar as "HYDROSTATIC". The block of the pump/motor includes and is coupled to at least 2 of the gear sets.
- 51. The '290 Patent claim 1 "hydraulic fluid circuit", though not seen in Exhibit 11, is obvious, since the hydrostatic pump and motor could not function without it. It is connected to both ports of the hydrostatic pump/motor.
- 52. The '290 patent claim 1 claims a "valve to selectively control flow". The Caterpillar continuously variable transmission including a fluid controlled resistance brake/hydraulic clutch uses the swashplate on the pump/motor as a valve to control flow.
 - 53. Claim 6 of the '290 Patent is a method claim which states:
 - "6. A method of transmitting rotational power from a rotational power source to a load comprising:
 - Delivering rotational power to a first element of a gear set, wherein a load is coupled to a second element of said gear set; and
 - Restricting flow from a hydrostatic pump coupled to a third element of said gear set, Wherein said hydrostatic pump comprises a plurality of reciprocating pistons,
 - Wherein said restricted flow causes rotational resistance to be applied to said third element of said ger set,
 - Wherein said rotational resistance results in transfer of rotational power from said first element to said second element."
- 54. The Caterpillar continuously variable transmission with hydraulic clutch transmits power from the power source to a load as can be seen on Exhibit 11, where the hydrostatic portion of the product is connected to the mechanical portion.

Rotational power is delivered to one of the gears in a planetary gear set as can be seen in Exhibit 11, and a load is coupled to a second gear in the planetary ger set through a hydrostatic pump/motor as can also be seen in Exhibit 11.

Flow from the hydrostatic pump/motor is restricted by the swivel of the swashplate in the pump/motor.

The restricted flow causes resistance to be applied to a third gear in the planetary gear set, and rotational power is transmitted from the first gear to the second gear as seen in Exhibit 11.

- 55. Claim 7 of the '290 patent states: "7. The method of rotational power from a rotational power source to a load of claim 6, wherein said gear set is a planetary gear set."
- 56. At least one of the gear sets in the Caterpillar continuously variable transmission with hydraulic clutch is a planetary gear set, as evidenced in Exhibit 11.
- 57. The method claims in the '290 patent uses a load to create backpressure and thus variable speed.
- 58. The Caterpillar continuously variable transmission with hydraulic clutch as depicted on their website and as shown in the video screen shot Exhibit 11 clearly shows this method.
- 59. The abstract of the '290 patent states that the rotational power distribution and control system may be operable to function similarly to a typical automotive manual clutch. It also states, "Oher embodiments of the rotational power distribution and control system may function as continuously or infinitely variable transmissions." During prosecution of the '290 patent application, the continuously variable transmission species with a planetary was withdrawn and cancelled out of the patent.
- 60. The rotational power distribution and control system as used in Defendant Caterpillar's product functions similarly to an automotive manual clutch

- 61. Thus, the Caterpillar continuously variable transmission system with hydraulic clutch clearly infringes on the '290 claims 1, 6, & 7.
- 62. Defendant Caterpillar does not claim any patent coverage or protection for their "continuously variable transmission", either on their product, their website, or in conjunction with any Caterpillar-produced videos of the product; as they would be required to do by law, were they claiming any such protection. Failure of Defendant Caterpillar to do so further damages Plaintiff, as other parties, while assuming there is no patent coverage, may copy the "continuously variable transmission" and unintentionally infringe on Plaintiff's patent.

WHEREFORE, Plaintiff Ernie Brookins respectfully requests this Court enter relief as follows:

- A preliminary and final injunction against continuing infringement by Defendant Caterpillar Inc.
- 2. An accounting for damages and interest thereon;
- 3. Plaintiff's costs and disbursements, including any attorney fees, as permitted by applicable law; and
- 4. For such other and further relief as this Court deems just and equitable.

JURY DEMAND

Plaintiff demands a jury trial of any factual issues pursuant to Rule 38 of the Federal Rules of Civil Procedure.

Dated this 4 day of February 2019

Ernie Brookins, pro se

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UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NORTH DAKOTA SOUTH EAST DIVISION

Ernie Brookins,	Civil No.
Plaintiff,	CERTIFICATE OF SERVICE
v.	
Caterpillar, Inc.,	
Defendant.	

I hereby certify that an exact copy of the following documents was served upon C.T. Corporation Systems, which is the Registered Agent in the State of North Dakota for Caterpillar Inc., by placing a copy in the United States Mail, postage prepaid, and mailing to their last known address.

Documents sent:

Summons Complaint in Civil Action Exhibits 1 through 11

Names and Addresses to which the documents were sent:

By U.S. first class mail: Caterpillar Inc. C.T. Corporation Systems 314 East Thayer Ave. Bismarck, ND 58501-4018

Dated: February 4, 2019